REMARKS/ARGUMENTS

STATUS OF THE CLAIMS

Claims 1-24 are pending. Applicant has amended Claim 1. In light of the following, Applicants respectfully request reconsideration and allowance of the pending claims.

SPECIFICATION

As requested by the Examiner, Applicants have amended the specification to correct the application number of the parent application. Applicants respectfully request removal of the objection to the specification.

CLAIM REJECTION – 35 U.S.C. § 102

Independent Claim 1

Claim 1 stands rejected under 35 U.S.C. § 102 as being anticipated by U.S. Patent No. 4,753,244 issued to Landymore et al. ("Landymore").

Amended Claim 1 specifies "an indicator to indicate the state of the cardiac tissue and to indicate that an escape beat is imminent; a nerve stimulator in communication with the sensor to inhibit beating of a heart when an escape beat is imminent; and a cardiac stimulator in communication with the sensor to stimulate beating of a heart to ensure adequate blood flow; the nerve stimulator being off whenever the cardiac stimulator is on and the cardiac stimulator being off whenever the nerve stimulator is on.

Landymore discloses a heart monitor for mounting on or near the heart during surgery to monitor the electrical activity of the heart during cardioplegic arrest and displaying an output when the signal exceeds a threshold level. *Landymore*, Abstract. Landymore does not disclose a nerve stimulator or a cardiac stimulator, as specified by amended Claim 1. Accordingly, independent Claim 1 and dependent Claims 2-24 are allowable over Landymore.

Claim 1 also stands rejected under 35 U.S.C. § 102 as being anticipated by U.S. Patent No. 6,304,777 issued to Ben-Haim et al. ("Ben-Haim").

Ben-Haim discloses an apparatus 18 for inducing cardioplegia of a patient's heart 20. The apparatus 18 includes electrodes 32, 34, 36, and 38 coupled to the heart 20. Motion sensors 70 and supplemental sensors 72 are also coupled to the heart 20. A control unit 90 is coupled to all of the electrodes and sensors. *Ben Haim*, col. 5, lines 44-60. The control unit 90 conveys electrical energy to electrodes 100 coupled to the heart 20 in order to induce cardioplegia to substantially stop motion of the heart 20. *Id.* at col. 6, lines 47-57. The control unit 90 reports the measurements of the sensors to an operator of the apparatus 18, who interprets the measurements. The operator may choose to continue the cardioplegia-inducing procedure, modify the procedure, or terminate the procedure. *Id.* at col. 5, line 61 to col. 6, line 3.

Ben-Haim also discloses that the control unit 90 includes an arrhythmia detection unit 82 that receives inputs from sensors 70 and 72 and from electrodes 74 and 100. The arrhythmia detection unit 82 conveys a signal so that the control unit 90 can treat or terminate the arrhythmia by applying regular pacing pulses or defibrillation pulses. *Id.* at col. 8, lines 15-23. Ben-Haim discloses that if the arrhythmia detection unit 82 detects a deviation from an expected motion profile or electrical activity profile, then it typically terminates application of the energy and initiates an anti-arrhythmic procedure under the surgeon's control.

If the control unit 90 and the electrode 100 of Ben-Haim are the "nerve stimulator" of Claim 1 and the arrhythmia detection unit 82 and the control unit 90 of Ben-Haim are the "cardiac stimulator" of Claim 1, Ben-Haim does not disclose "the nerve stimulator being off whenever the cardiac stimulator is on and the cardiac stimulator being off whenever the nerve stimulator is on," as specified by amended Claim 1. Ben-Haim does not disclose any automatic coordination between the control unit 90 inducing cardioplegia and the arrhythmia detection unit 82 terminating arrhythmias. Rather, Ben-Haim relies on the operator of the apparatus 18 and/or the surgeon to choose to continue the cardioplegia-inducing procedure or to initiate an anti-arrhythmic procedure. Accordingly, independent Claim 1 and dependent Claims 2-24 are allowable over Ben-Haim.

In light of the above, independent Claim 1 and dependent Claims 2-24 are allowable.

Dependent Claims 4-8, 11-13, and 24

Claims 4-8, 11-13, and 24 stand rejected under 35 U.S.C. § 102 as being anticipated by Landymore. Claims 4-8, 11-13, and 24 depend from Claim 1 and are therefore allowable for the reasons set forth above with respect to Claim 1. Claims 4-8, 11-13, and 24 also include patentable subject matter not specifically discussed herein.

Dependent Claims 2, 11-16, and 24

Claims 2, 11-16, and 24 stand rejected under 35 U.S.C. § 102 as being anticipated by Ben-Haim. Claims 2, 11-16, and 24 depend from Claim 1 and are therefore allowable for the reasons set forth above with respect to Claim 1. Claims 2, 11-16, and 24 also include patentable subject matter not specifically discussed herein.

CLAIM REJECTION – 35 U.S.C. § 103

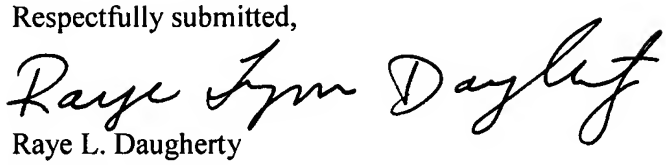
Dependent Claims 3, 9-10, and 17-23

Claims 3, 9-10, and 17-23 stand rejected under 35 U.S.C. § 103 as being unpatentable over Ben-Haim in view of Medtronic WO 97/40885 ("Medtronic"). Claims 3, 9-10, and 17-23 depend from Claim 1 and are therefore allowable for the reasons set forth above with respect to Claim 1. Claims 3, 9-10, and 17-23 also include patentable subject matter not specifically discussed herein.

CONCLUSION

In light of the above, Applicants respectfully request reconsideration and allowance of pending Claims 1-24.

Respectfully submitted,



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